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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/994,394  
Filing Date: November 26, 2001  
Appellant(s): LANVIN ET AL.

MAILED  
JUN 27 2007  
Group 3700

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William C. Gehris  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed April 23, 2007 appealing from the Office action  
mailed July 19, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,524,930	FOSTER et al	6-1996
5,146,829	WADZINKI	9-1992
FR 2,782,504 A1	GANNEVAL	2-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1-6 and 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Foster et al (5,524,930), hereafter Foster.**

Regarding claims 1, 14 and 15, note first section on the right side of midpoint 18 in figure 1; plurality of perforating teeth 20 on the right side of cutting zone 16 in figure 1; perforation-free gap juxtaposed between the cutting zone 16 and the first perforating tooth 20 on the right side of cutting zone 16; second section to the left of midpoint 18 in figure 1; cutting zone 16; perforating elements 20 on the left side of cutting zone 16; perforating elements being angled 23 in figure 3; longitudinal axis 26; centerline is the cutting edge of element 16 which is in the center of the tool as recited in column 2, lines 51-54.

Regarding claims 2 and 3, note juxtaposition of perforation-free gap and cutting zone in figure 1, and group of perforating elements 20 on the left side of the cutting zone in figure 1.

Regarding claims 4 and 5, note angle between 20 and 40 degrees in column 4, lines 18-20.

Regarding claim 6, note two groups 23 and 24 to the left of cutting zone 19 in figure 3; and cutting segments 22 in figure 1.

Regarding claim 8, note perforating elements 23 and 24 at a rear edge are angled on one side of axis 26 in figure 3.

Regarding claim 9, note perforating elements 23 and 24 at a front edge are angled on one side of axis 26 in figure 3.

Regarding claim 10, note perforating tongues 20 in figure 1.

Regarding claim 11, note slit-shaped openings 24 in figure 1.

Regarding claim 12, note slanted tip of perforating element 10 juxtaposed between element 44 and element 32 in figure 5.

Regarding claim 13, note lengths of first and second sections are the same in figure 3.

Regarding claim 14, note web-processing printing machine in column 1, lines 7-22.

Regarding claim 16, note the center line is the cutting edge of element 16 at the center of the tool as recited in column 2, lines 51-54.

Regarding claim 17, note spaces 24 in figure 2. The perforation-free gap is interpreted as the space juxtaposed cutting zone 16 and the first tooth 20. As shown in figure 3, since the teeth 20 are at an angle, the distance between the cutting zone and the closest tip of the first tooth 20 is larger than the spaces 24 in figure 2. The distances appear to be equal in figure 2, however, this figure is in a profile view, and figure 3 clearly shows that the perforation-free gap is clearly larger than spaces 24.

Regarding claims 18 and 19, note the cutting edge of the cutting zone 16 and the center line are the same. Thus, the cutting zone borders the perforation-free gap at the fold center line. Also, the first section and the second section are on either side of midpoint 18 and are halves of the tool.

**Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster in view of Wadzinski (5,146,829).** Foster discloses everything as noted above, but does not disclose perforating elements symmetrically angled with respect to the axis. However, Wadzinski teaches perforating elements 22 symmetrically angled with respect to the axis 20 in figure 1. It would

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have been obvious to provide perforating elements symmetrically angled with respect to the axis in Foster as taught by Wadzinski in order to apply even pressure to the rear side and front side of the perforating elements while they engage the web material.

**Claims 1-6 and 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganneval (FR 2,782,504 A1) in view of Foster.** For the purpose of understanding Ganneval more clearly, the reference numbers of Ganneval et al (6,454,692) will also be provided in place of the numbers of Ganneval (FR 2,782,504 A1). Ganneval discloses tool 34; first section below element 43 in figure 4; second section above element 43; perforation-free gap 46; cutting zone 45; group of perforating elements in alternating sequential fashion 44; center line collinear with element 43; longitudinal axis is collinear with element 34; cutting segments 45; tongues 44; lengths of sections are the same as recited in column 9, lines 22-27. Ganneval does not teach perforating elements angled with respect to the longitudinal axis of the second section. However, Foster teaches perforating elements angled with respect to the longitudinal axis of the second section in columns 2 through 3, lines 56 through 20, respectively. It would have been obvious to provide perforating elements angled with respect to the longitudinal axis of the second section in Ganneval as taught by Foster in order to enable the workpiece to twist more easily. Note in Foster, angle between 20 and 40 degrees in column 4, lines 18-20, in Foster; an angle of 30 degrees falls within the range; perforating elements 23 and 24 at a rear edge are angled on one side of axis 26 in figure 3; perforating elements 23 and 24 at a front edge are angled on one side of axis 26 in figure 3; slit-shaped openings 24 in figure 1; slanted tip of perforating element 10 juxtaposed between element 44 and element 32 in figure 5.

**Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ganneval and Foster as applied to claims 1-6 and 8-19, and further in view of Wadzinski.** The combination discloses everything as noted above, but does not disclose perforating elements symmetrically angled with respect to the axis. However, Wadzinski teaches perforating elements 22 symmetrically angled with respect to the axis 20 in figure 1. It would have been obvious to provide perforating elements symmetrically angled with respect to the axis in the combination as taught by Wadzinski in order to apply even pressure to the rear side and front side of the perforating elements while they engage the web material.

**(10) Response to Argument**

Initially, the several arguments the appellant has made with respect to the term "center line" in claim 1, lines 7 and 8, claim 14, line 8, and claim 15, lines 6 and 7, are considered moot. In the Office letter mailed 01/31/2006, the following objection was set forth:

Claims 1-19 are objected to because of the following informalities: "fold center line" should be changed to --center line-- because "fold center line" is an element that is part of the product. The fold center line is the line along which the material webs are folded. Including elements of the product being made is misleading and does not further limit the structure of the tool. The Examiner is interpreting this limitation as the center line of the tool because in light of the specification and the figures, the "fold center line" and the --center line-- of the tool are coplanar. Appropriate correction is required.

With respect to the 35 U.S.C. 102(b) rejection as being anticipated by Foster, Appellant asserts that the cutting edge of element 16 cannot be the center line of the perforating tool, however, despite element 18 defining the midpoint in figure 1 as below the cutting edge of element 16, the midpoint of the tool lies along the cutting edge of 16 because the midpoint 18 of the perforating tool can be projected onto any point of the perforating tool along an axis that is perpendicular to the longitudinal axis of the perforating tool. Element 16 is certainly a line as shown in figures 1 and 2 of foster, and is centered along the length of the tool because it overlaps with the midpoint 18 of the tool along a longitudinal dimension of the tool. Thus, element 16 is a center line of the perforation tool. Moreover, as shown in figures 1 and 2 of Foster, the perforation-free gap is juxtaposed between the cutting zone 16 and the first perforating tooth 20 on the right side of cutting zone 16.

Appellant further asserts that the limitation of “the first section being adjacent the second section at a center line” is not met by Foster if element 16 is considered the center line. However, the term adjacent is interpreted to mean “near”. Therefore, the first section is clearly near the second section at center line 16 as shown in figures 1 and 2 of Foster.

With respect to claim 5, Appellant asserts that although Foster discloses a range of 10 to 40 degrees for the angle of the teeth, Foster does not disclose the species of a 30 degree angle. However, in view of the disclosure of Foster an angle of 30 degrees is clearly a disclosed embodiment of the perforation tool in Foster for obtaining the desired result of cutting the workpiece at that angle.

With respect to claim 6, appellant asserts that Foster does not disclose “alternating sequential fashion between groups”. However, as shown in figures 1 and 2 of Foster, note



groups 20 that alternate with cutting segments 22 as shown by the pattern 23, 24 that the groups make in workpiece as shown in figure 3 of Foster.

With respect to claim 16, appellant asserts that Foster does not disclose that “the length of the first section and a length of the second section are the same. However, the first section is on one side of the center point 18 of the perforation tool, and the second section is on the other side of the center point 18 of the perforation tool, thus, the first section has the same length as the second section.

With respect to claim 17, appellant asserts that Foster does not disclose that the perforation free gap is wider than the spaces”. However, as shown in figure 3 of Foster, the space between the cut 19 and the cut 23 is larger than the space between the cut 23 and the cut made by element 22, thus, the perforation-free gap is wider than the spaces.

With respect to claim 19, appellant states that the Office letter is purposefully muddled by what is the center line. Appellant appear to be seeking clarification to the question “Is it midpoint 18 or the edge of the cutting zone?” In short, the midpoint 18 is not a line, it is merely a point that lies halfway between the longitudinal length of the perforation tool. The first and second section of the tool meet at this point 18. The edge of the element 16 is the center line of the tool because the midpoint 18 of the tool lies along this line. Because the center point 18 of the tool lies along the center line 16, at least some portion of line 16 must separate the first and second halves of the tool.

With regards to the 35 U.S.C. 103(a) rejection of Ganneval in view of Foster, appellant has presented several arguments. Firstly, appellant asserts that one of ordinary skill in the art would not have modified the perforating tool in Ganneval in order to provide angled sections,

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however, it is believed that one of ordinary skill in the art would have made the necessary modifications to Ganneval in order to incorporate the improvements of Foster, which includes providing discrete sections on the perforating tool.

Appellant asserts that there is no motivation to combine Ganneval and Foster, and asks the question "Why would anyone of skill in the art want a workpiece to twist easily?". The answer to this question is that if the workpiece twist more easily, then the amount of wrinkles due to the folding of the workpiece is reduced. The motivation for combining Ganneval and Foster is explicitly stated in column 4, lines 40-44, of Foster. And the answer to appellant's question can likewise be found in Foster in column 4, lines 54-60. Moreover, this motivation for combining the perforating elements angled with respect to the longitudinal axis of Foster in Ganneval applies to the argument by appellant for claims 5, 7, 8, 9 and 11.

The arguments presented by appellant for claims 16 and 17 have previously been addressed.

With respect to claim 7, appellant asserts that there is no proper motivation to combine Wadzinski with Ganneval and Foster, and that the motivation is not understood. The motivation set forth in the Final Office letter states that it would have been obvious to provide perforating elements symmetrically angled with respect to the axis as taught by Wadzinski in order to apply even pressure to the rear side and front side of the perforating elements while they engage the web material. This feature of Wadzinski is an improvement to Ganneval and Foster because as shown in figures 1-3 of Foster, the perforation elements are not symmetrically angled with respect to the axis of the tool. The unsymmetrical configuration of Foster is known to cause a moment arm because the pressure of the unsymmetrical perforation elements coming into contact

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with the workpiece is only on one side of longitudinal axis of the tool. The moment arm may be strong enough to cause bending of the perforation tool and may cause bending of the perforation tool about the connection between the perforation tool and the blade block 44 of Foster, or the cylinder 16 of Ganneval. Therefore, damage to the perforation tool can be avoided if the moment arm is eliminated by providing perforating elements symmetrically angled with respect to the axis, which apply even pressure to the rear side and front side of the perforation elements while they engage the web material.

**(11) Related Proceeding(s) Appendix**

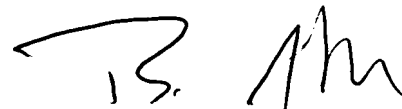
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




Isaac N. Hamilton



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER

Conferees:

Boyer D. Ashley, SPE 3724 

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